

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-011405**Date Inspected:** 04-Jan-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this date Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector, D.Sukanthan was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

OBG # CROSS BEAM CB01

This crossbeam appears to be completed and was shipped.

OBG # CROSS BEAM CB02

This crossbeam appears to be completed and was shipped.

OBG # CROSS BEAM CB03

This crossbeam appears to be completed and was shipped.

OBG # CROSS BEAM CB04

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

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### OBG # CROSS BEAM CB05

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB06

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB07

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB08

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB09

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB10

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB11

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB12

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB13

This QA observed that no significant work was being performed on this crossbeam during the time QA was

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present.

### OBG # CROSS BEAM CB14

This QA observed ZPMC qualified welding personnel identified as 057795 perform Shielded Metal Arc Welding (SMAW) Process welding on weld joint FB205-043-026. ZPMC Quality Control Personnel (QC) identified as Mr. Guo Yuan Ting was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2212-B-U2.

This QA observed ZPMC qualified welding personnel identified as 058102 perform Shielded Metal Arc Welding (SMAW) Process welding on weld joint FB205-042-026. ZPMC Quality Control Personnel (QC) identified as Mr. Guo Yuan Ting was present to monitor the welding process. The welding parameters as measured using QC's calibrated instruments appeared to be in general compliance with WPS-B-P-2212-B-U2.

During the Quality Assurance (QA) random in-process visual inspection, this QA inspector discovered the ZPMC appears to have deviated from the weld joint design specified on the approved drawings. The specified weld detail (WD60M) does not indicate the use of steel backing. Steel backing bar was added without approval of the Engineer. The root openings as measured by this QA are between 7mm and 15mm. The weld joints affected are identified as : FB205-042-029, FB205-042-030, FB205-041-029, FB205-043-029, FB205-043-030, FB205-044-029, FB205-044-030, FB204-042-054, FB204-042-088, FB204-042-058, FB204-042-049, FB204-043-087, FB204-043-054, FB204-043-088, FB204-044-054, FB204-044-088, FB204-044-053, and FB204-044-087. This QA notified ABF QC identified as Mr. Chen Ji Wei and ZPMC QA identified as Mr. Zhang wei of this issue and that an incident report would be generated.

### OBG # CROSS BEAM CB15

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB16

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

### OBG # CROSS BEAM CB17

This QA observed that no significant work was being performed on this crossbeam during the time QA was present.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

As mention above

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### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-00422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Sukanthan,Dhanasingh	Quality Assurance Inspector
<b>Reviewed By:</b>	Hall,Steven	QA Reviewer

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